

Underside and legs black, shining, pubescent, the abdominal segments bright rufous. Legs pubescent, rufous; knees, trochanters, and tarsi infuscated; claws reddish, divided, but not pectinated.

Length 10, breadth 4 millin.

Hab. Lahej, near Aden. Collected and presented by Col. J. W. Yerbury.

This species differs from *Deridea curculionoides* chiefly in its colouring (which is almost entirely rufous), in having no median line down its prothorax, and in not being so glabrous, but more pubescent.

There is a second specimen from the same locality in the collection differing slightly from the type in the colouring of the head and underside, which is entirely rufous, without any black at all.

XXXVIII.—*On a Collection of Heterocera made in the Transvaal.* By W. L. DISTANT.

Fam. Saturniidæ.

I obtained a very fair collection of these fine moths during my last three years' sojourn in the Transvaal, and my success was principally owing to the electric lamps which now light Pretoria, and did not do so when I first visited the country. In fact, I think I may state that all my specimens of Saturniidæ were taken at light. These huge moths strike against the glass and fall to the ground, when they may be picked up; a net is seldom required, and specimens may often be taken in the early morning which have not sufficiently recovered from the collision of the previous night.

In the following enumeration I have only referred to the specimens obtained in the Transvaal, and have added notes on variation and described two new species. Where not otherwise specified, the captures were my own.

Species obtained in the Transvaal.

- Epiphora mythimnia*, Westw. Barberton (Dr. P. Rendall and J. R. Harrison).
Buncea angasana, Westw. Pretoria.
Gonimbrasia pygela, Druce. Pretoria.
Antheraea arabella, Auriv. Pretoria, Middelburg.
 — *arata*, Westw. Barberton (J. R. Harrison).
 — *cytherea*, Fabr. Pretoria.
 — *belina*, Westw. Pretoria.

- Antheræa menippe*, Westw. Barberton (*Dr. P. Rendall*).
 — *tyrreæ*, Cram. Pretoria.
 — *bracteata*, sp. n. Pretoria.
Gyanisæ maia, Klug. Barberton (*Dr. P. Rendall*), Pretoria, Lydenburg.
Cirina forda, Westw. Barberton (*Dr. P. Rendall*), Pretoria.
 — *similis*, sp. n. Pretoria.
Heniocha flavida, Butl. Pretoria.
 — *dyops*, Maass. & Weym. Pretoria.

Variation.

So great is the variation of markings in these moths that, had I not possessed a reasonable series, I must have inevitably either failed to identify some of the species, or have been led to describe them as new. This variation consists principally in the relative position of the transverse fasciæ to the anterior wings (*Antheræa*) and the position of the ocellated spot to the posterior wings (*Buncea* and *Antheræa*). The first is so strikingly dissimilar that had I not the same variation in two different species, I should have considered it of a specific and not varietal character. It is also probably not a case of seasonal dimorphism.

Buncea angasana.

Saturnia angasana, Westw. Proc. Zool. Soc. Lond. 1849, p. 52. n. 19;
 Ang. Kaff. Ill. t. xxx. fig. 16 (1849).

This species is not unreasonably considered by Mr. Rothschild (Nov. Zool. vol. ii. p. 39) to be an aberration of *B. caffraria*, Stoll. It is, however, in my experience the only form in the Transvaal, where I have never met with *B. caffraria*, which is common enough in the Cape Colony and Natal. There can be no doubt as to the close alliance of the two species (?), and breeding must decide the point. All my specimens of *B. angasana* are also larger than *B. caffraria*. In both forms or species (?) the usual position of the ocellated spot on the posterior wings is in more or less connexion with the outer transverse fascia. In one of my specimens of *B. angasana* the spot holds a discal or central position.

Gonimbrasia pygela.

Buncea pygela, Druce, Proc. Zool. Soc. Lond. 1886, p. 409, t. xxxviii.
 fig. 1.

Mr. Druce's description and figure are evidently taken from a somewhat rubbed specimen. In fresh examples the whole surface of the anterior wings is bright pinkish brown, save the outer margins, which are indistinctly violaceous. The

posterior wings are very bright orange-yellow, the outer margin pale violaceous, with the fringe pink.

Antheræa menippe.

Saturnia menippe, Westw. Proc. Zool. Soc. Lond. 1849, p. 43. n. 6, t. ix. fig. 2.

Mr. Rothschild (*l. c.* p. 43) has described a form of this species from Taveta as *A. (N.) menippe fumosa*, subsp. nov., in which the colour is "smoky brown all over, instead of dull crimson." In Barberton specimens taken at the same time the outer margins of the wings are either pale ochraceous or smoky brown.

Antheræa belina.

Saturnia belina, Westw. Proc. Zool. Soc. Lond. 1849, p. 41. n. 4, t. viii. fig. 2.

This species is evidently of a most variable character. Mr. Rothschild (*l. c.* p. 42) has included the form *A. (N.) Huebneri*, Kirby, as a synonym, and I should have considered the large male, I now describe as a variety, rather as possessing all the characters of a distinct species, had not a similar aberration occurred with *A. cytherea*.

Var. *a* (♂).—Larger than the ordinary form, of which I obtained examples at Pretoria. Anterior wings with the transverse fasciæ much wider apart. Posterior wings with the ocellated spot on disk, and somewhat widely separated from the submarginal fascia.

This cannot be considered a seasonal form, having been taken at Pretoria in November, and the normal form of the species on the 30th October.

Antheræa cytherea.

Bombyx cytherea, Fabr. Syst. Ent. p. 557. n. 5 (1775).

This variable species, not included in Mr. Rothschild's list of species of the genus (*Nudaurelia*, Rothsch.), is well known to vary greatly in hue, as a long series now before me amply testifies. From Pretoria I obtained normal specimens, but also a very large male exhibiting the aberration described in the last species.

Var. *a* (♂).—Much larger in size than ordinary forms of the same sex. Anterior wings with the transverse fasciæ very much wider apart. Posterior wings with the ocellated spot more removed from the submarginal transverse fascia.

Taken with typical forms in February at Pretoria.

Antheræa bracteata, sp. n.

Wings, body above and beneath, and legs bright golden yellow; antennæ brownish ochraceous, with the apical joints (excluding extreme apex) blackish.

Anterior wings at about one fourth from base crossed by a single waved, transverse, plumbeous fascia, a similarly coloured but more pronounced transverse fascia at about one third from outer margin, and faint indications of a similar submarginal fascia. At end of cell are faint indications of a bright ocellated spot beneath.

Posterior wings with a large ocellated spot at end of cell, plumbeous, with a small grey centre and a bright black outer margin, and with two plumbeous outer transverse fasciæ—one submarginal and the other at about one fourth from margin.

Wings beneath with the fasciæ almost obliterated; anterior wings with a bright black ocellated spot centred with greyish at end of cell, and posterior wings with the spot above almost obliterated beneath.

Exp., ♂ 135 millim.

Hab. Transvaal, Pretoria (*Distant*).

This species, which seems to be nearest to *A. (Nudaurelia) aurantiaca*, Rothsch., is not only very distinct in coloration and markings, but has the peculiarity in the ocellated spots, that in the anterior wings they are very distinct beneath and almost obliterated above, while in the posterior wings the process is reversed, being brightly pronounced above and very indistinct beneath.

Cirina similis, sp. n.

Closely allied to *C. forda*, Westw., but differing structurally by the larger size of both sexes, and by the females showing no angulation on the posterior margin of the hind wings, which is plainly seen in *C. forda* ♀. Other differences are found in the ocellated spot of the posterior wings being much more discal and therefore less contiguous to the transverse fascia.

Exp., ♂ 117, ♀ 110–128 millim.

Hab. Transvaal, Pretoria (*Distant*).

I took both this species and *C. forda* in Pretoria, and, allowing for all the undoubted variation in Saturniidae, am compelled to separate them specifically.

The British Museum possesses a female specimen from Gambia.

Heniocha dyops.

Saturnia dyops, Maass. & Weym. Beitr. Schmett. ii. fig. 21 (1872).

I acquired a fair series of specimens of this species at Pretoria, and found it to be very variable in markings. One specimen agrees with the typical figure in having the ocellated spot of the anterior wings connected with the transverse fascia; in all other specimens they are more or less widely separated. The discal spot to the posterior wings is sometimes very distinct, or absent on one wing, or totally wanting on both; the inner transverse fascia to the same wings is either complete or sometimes abbreviated.

I have not seen the type of *H. marnois*, Rogenh., but from the description think it is but a varietal form of *H. dyops*; and as Mr. Rothschild is inclined to unite Rogenhofer's species with *H. bioculata*, Auriv., there must, if my surmise is correct, be considerable synonymy among the species of the genus.

XXXIX.—*Contributions from the New Mexico Biological Station.*—V. *Some new Hymenoptera from the Mesilla Valley, New Mexico.* By T. D. A. COCKERELL.

Apidæ.

Centris cæsalpinie, sp. n.

♀.—Length 15–18 millim.

Black; head and thorax with pale ochraceous pubescence, short and very dense on thorax, clypeus and sides of front bare. Eyes, clypeus, labrum, and basal three fifths of mandibles crimson. Clypeus shining, very sparsely punctured. Mandibles truncate at tips and with four denticles, alternating large and small, on inner side. Some very long hairs spring from near the base of the mandibles beneath. Antennæ black, the end of the scape slightly tinged with rufous. Front very broad, inner orbits parallel. Tegulæ whitish. Wings smoky hyaline, nervures and stigma fuscous, third submarginal cell narrowed more than half to marginal, no distinct stump of a nervure springing from lower outer corner of third submarginal. Legs black or dark piceous, with black pubescence, and more or less pale brownish pubescence on the four anterior legs; hind tibiæ and basal joint of tarsi broadly dilated, with dense black hairs. Claws large, rufous at base, seeming to be entire, but